IN THE CLAIMS:

1.   (Currently Amended) A wireless base station that wirelessly communicates with a plurality of mobile stations <u>via an antenna</u> by using space division multiplexing (SDM), each mobile station sending communication data containing an identifier (ID) to the wireless base station, comprising:

association information storing means for storing association information that associates each of the plurality of mobile stations with a different ID;

receiving means for receiving data into which communication data sent from the plurality of mobile stations is space-division multiplexed; and

[extracting means for (a) specifying an ID associated with each mobile station by referring to the association information, and (b) extracting, from the received data, communication data sent from the mobile station by using the specified ID]

A I

<u>extracting means for extracting, from the received data, communication data sent from the mobile station, the extraction being performed by (i) specifying an ID associated with each mobile station by referring to the association information, (ii) defining a reference signal containing the specified ID, (iii) obtaining, from first signals that have been sequentially received via the antenna by forming a directivity pattern, a second signal estimated to be related to the communication data, (iv) sequentially performing a calculation based on the second signal and the reference signal, (v) sequentially adjusting the directivity pattern by reflecting a result of the calculation, and (vi) obtaining data based on the second signal.</u>

signal by adjusting each weight vector so as to minimize the difference, and (g) regards

the adjusted second signal as communication data sent from the mobile station, thereby

extracting the communication data.

7.   (Currently Amended)   A wireless phone, comprising:

receiving means for receiving a word for synchronization [an identifier (ID)]

sent from a wireless base station; and

sending means for sending the word for synchronization [communication

data containing the received ID] to the wireless base station, the word for

~~synchronization being sent preceding a main data that is a content of a communication.~~